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| 10/623,402   | 07/18/2003  | Michael R. Schwarz   | CS-7890                           | 4637             |
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| BAYER CROPSCIENCE LP<br>Patent Department<br>100 BAYER ROAD<br>PITTSBURGH, PA 15205-9741 |             |                      | EXAMINER<br>COTTON, ABIGAIL MANDA |                  |
|  |             |                      | ART UNIT<br>1617                  | PAPER NUMBER     |

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/623,402

Applicant(s)

SCHWARZ, MICHAEL R.

Examiner

Abigail M. Cotton

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is in response to the amendment submitted on December 19, 2005. Claims 1-9 and 11-16 are pending in the application and are being examined on the merits herein.

The rejection of the claims under 35 U.S.C. 112, first paragraph, as lacking enablement for the full scope of the claim, is being withdrawn in view of Applicant's amendment to claim to recite the specific types of herbicide for which the phytotoxicity is reduced with the chloronicotinyl insecticide.

However, upon further search and consideration, the Examiner has rejected the claims over the prior art as follows.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 05-139921 to Suzuki et al, published June 8, 1993 (the machine translation of the JP reference is being referred to herein.)

Suzuki et al. teaches a granule for control of noxious organisms that combines 1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidine-2 indeneamine (imidacloprid, a chloronicotinyl insecticide) with a sulfonylurea herbicide (see abstract, in particular.) Suzuki et al. teaches that the granule can be used to control insect pests and weeds in rice paddy fields, in particular (see abstract, in particular.) Suzuki et al. also teaches that the combination not only provides insecticidal and herbicidal activity, but that it also reduces the phytotoxicity to the plant that would otherwise be caused by the application of the herbicide (see paragraph 0009, in particular.) Suzuki et al. teaches that the granule having the combination of insecticide and herbicide is applied to

Accordingly, it is considered that Suzuki et al. teaches a method of reducing phytotoxicity to a plant caused by a herbicide application to the plant comprising applying to the plant locus a composition comprising a chloronicotinyl insecticide, and applying to the plant locus a herbicidal composition that is a sulfonylurea, and thus anticipates the method of claim 1.

Regarding claims 2-3, Suzuki et al. teaches the application of the granules for the treatment of rice, which is a monocotyledon crop plant, as recited in the claims.

Regarding claims 6 and 16, Suzuki et al. teaches providing the insecticide 1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidine-2 indeneamine, which is a chloronicotinyl insecticide having the formula (I) as claimed, as well as the formula as recited in claim 16.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 7-9 and 11-15 are rejected under 35 U.S.C. 103(a) as being obvious over JP 05-139921 to Suzuki et al, published June 8, 1993 (the machine translation of the JP reference is being referred to herein), as applied to claims 1-3, 6 and 16 above, in view of WO 01/26468 to Senn et al, published April 19, 2001.

Suzuki et al. is applied as discussed above, and teaches the combination of the insecticide 1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidine-2 indeneamine (imidacloprid, a chloronicotinyl insecticide) with a sulfonylurea herbicide for control of insects and weeds in rice paddies, as well as to reduce the phytotoxicity of the herbicide on the plants.

Suzuki et al. does not specifically teach that the herbicide is applied to the soil of the plant locus or to the foliage of the plant locus, as recited in claims 4-5. Suzuki et al. also does not specifically teach that the insecticide is applied to the seed of the plant or as a pre- or post-emergent treatment, as recited in claims 7-9. Suzuki et al. also does not specifically teach applying the composition to a crop plant that is maize or corn, as in claim 12, or applying to a corn seed as in claim 12, or in the amount as in claim 13. Suzuki et al. also does not specifically teach providing the soil temperature at the plant locus that is recited in claims 14-15.

Senn et al. teaches that plant growth can be improved by applying compounds having the formula (I) (see abstract, in particular), which includes the insecticide

imidacloprid (see page 3, in particular), the same compound as taught by Suzuki et al. Senn et al. teaches that the compounds not only provide pesticidal activity, but also enhance plant growth (see page 4, in particular.)

Regarding claims 4-5, Senn et al. teaches that it is known to apply the insecticide/growth enhancer to the leaves of the plant (foliage) or to the soil (see paragraph bridging pages 7-8, in particular.) Regarding claims 7-9, Senn et al. teaches that it is known to apply the insecticide/growth enhancer to the seed of the plant, which is a pre-emergent treatment, as well as to the plant itself, which is a post-emergent treatment (see paragraph bridging pages 7-8 and page 8, second and third full paragraphs, in particular.)

Regarding claims 11-12, Senn et al. teaches that it is known to apply the insecticide/growth enhancer to the seeds of the plants, as discussed above, and that suitable plants that can be treated by the insecticide/growth enhancer include cereals such as maize and rice (see page 5, first full paragraph, in particular.)

Regarding claim 13, Senn et al. teaches that the insecticide/growth enhancer can be applied in a concentration of from 0.1 to 1000 ppm (see page 7, in particular), and can also be applied at a rate of application of from 0.0005 to 1 kg per 100 kg of material to be protected (e.g., plant propagation material.) Furthermore, it is considered that one of ordinary skill in the art at the time the invention was made would have found it

obvious to vary and/or optimize the amount of the insecticide/growth enhancer composition provided to the plant locus, according to the guidance provided by Senn et al, to provide a composition having desired properties. It is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955.)

Regarding claims 14-15, Senn et al. teaches that it is known to apply the compound to the soil at the plant locus (see paragraph bridging pages 7-8, in particular), and accordingly it is considered that one of ordinary skill in the art at the time the invention was made would have found it obvious to apply the composition to soil at the native or outdoors temperature of the soil, including temperatures of from 4°C to 25°C, or about 10°C to about 20°C, with the expectation of achieving insecticidal effects as well as plant growth enhancement. It is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955.)

Accordingly, it is considered that one of ordinary skill in the art at the time the invention was made would have found it obvious to apply the composition of Suzuki et al. in the methods of Senn et al, because Suzuki et al. teaches the advantages of combining an insecticide and herbicide to provide beneficial insecticidal, weed-killing



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and reduced phytotoxicity effects, whereas Senn et al. teaches known methods for the application and use of the insecticide used in the composition of Suzuki et al. Thus, one of ordinary skill in the art would have been motivated to provide the combination as taught by Suzuki et al, in the methods of Senn et al, with the expectation of further enhancing the methods by adding weed-killing effects with reduced phytotoxicity.

### ***Response to Arguments***

Applicant's arguments with respect to the rejections of the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

No claims are allowed.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In particular, JP 0361704 teaches insecticidal and herbicidal granules having imidacloprid and a sulfonylurea as active agents (see abstract, in particular.)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abigail M. Cotton whose telephone number is (571) 272-8779. The examiner can normally be reached on 9:30-6:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMC

  
SREENI PADMANABHAN  
SUPERVISORY PATENT EXAMINER